What is claimed is:

1.   A client apparatus comprising:

a cache memory which accumulates information externally provided;

an accumulation judgment portion which judges

5   whether or not the information to be externally provided is accumulated in said cache memory;

a request portion which requests acquirement of information when said accumulation judgment portion judges that the information to be externally provided

10   is not accumulated in said cache memory; and

an information processor which processes either one of the information accumulated in said cache memory and the information externally provided in response to the request from said request portion.

2.   The client apparatus according to claim 1, further comprising:

a storage judgment portion which judges whether or not the information externally provided can be

5   stored in said cache memory;

an information reduction portion which reduces an amount of the information accumulated in said cache memory based on attribute information composed of preference information of a user and profile

10   information indicative of a process ability of said client apparatus when said storage judgment portion

judges that the information externally provided can not be stored in said cache memory; and

a control portion which controls said cache
15 memory such that the information externally provided in response to the request from said request portion is stored after the amount of the information is reduced by said information reduction portion.

3.   An information providing system comprising:

an information source server which provides information in response to a request;

a client apparatus; and
5   a data communication network which connects said client apparatus to said information source server,

wherein said client apparatus includes:

a cache memory which accumulates the information provided by said information source server;
10   an accumulation judgment portion which judges whether or not the information to be provided by said information source server is accumulated in said cache memory;

a request portion which requests acquirement of
15 the information to said information source server through said data communication network when said accumulation judgment portion judges that the information to be provided by said information source server is not accumulated; and

20   an information processor processes either one of

the information accumulated in said cache memory and

the information provided by said information source

server in response to the request from said request

portion.

4.   The information providing system according to

claim 3, further includes:

a storage judgment portion which judges whether

or not the information provided by said information

5   source server can be stored in said cache memory;

an information reduction portion which reduces

the amount of the information accumulated in said

cache memory based on attribute information composed

of preference information of a user and profile

10 information indicative of a process ability of said

client apparatus when said storage judgment portion

judges that the information provided by said

information source server can not be stored in said

cache memory; and

15   a control portion which controls said cache

memory such that the information provided by said

information source server in response to the request

from said request portion is stored after the amount

of the information is reduced by said information

20 reduction portion.

5.   The information providing system according to
claim 4, wherein said data communication network
comprises:

a gateway apparatus which is connected to said
5   client apparatus through a first data communication
network and connected to said information source
server through a second data communication network,
wherein said gateway apparatus includes:
a second request portion which requests
10   acquirement of the information to said information
source server through said second data communication
network with said attribute information and
communication attribute information indicative of
communication abilities of said first data
15   communication network and said second data
communication network when the request of said request
portion of said client apparatus is received through
said first data communication network;
a second cache memory which accumulates
20   the information provided by said information source
server in response to the request from said second
request portion; and
a transfer portion which transfers the
information accumulated in said second cache memory to
25   said client apparatus through said first data
communication network based on said attribute
information and said communication attribute

information.

6.   The information providing system according to
claim 5, wherein said information source server
provides the information to said gateway apparatus
based on said attribute information and said
5   communication attribute information in response to the
request from said second request portion.

7.   The information providing system according to
claim 6, wherein said gateway apparatus provides the
information to said client apparatus based on said
attribute information and said communication attribute
5   information in response to the request from said
request portion.

8.   The information providing system according to
claims 7, wherein said client apparatus further
includes an attribute information change portion in
which at least one of said attribute information and
5   said communication attribute information is
dynamically changed.

9.   The information providing system according to
claims 8, wherein said information reduction portion
removes the information having a low priority from
said cache memory, wherein the priority is determined

5   based on said attribute information.

10.   The information providing system according to claims 9, wherein said information reduction portion compresses the information stored in said cache memory based on said attribute information.

11.   The information providing system according to claims 10, wherein the information provided by said information source server includes menu data for selecting an item and is linked to other information

5   corresponding to other menu data, the other information being provided by said information source server based on the selected item, and

said control portion controls said cache memory such that a remaining capacity of said cache memory is

10   increased by changing the link generated between the menu data and the other menu data, every time one of the menu data and the other menu data is stored in said cache memory.

12.   The information providing system according to claims 11, wherein said attribute information used in said client apparatus is prepared for each predetermined usage tendency.

13.   The information providing system according to

claim 12, wherein said attribute information used in said client apparatus can be changed into other attribute information having another predetermined
5   usage tendency.

14.   An information providing method comprising:

        (1) providing an information source server and a client apparatus;

        (2) accumulating information provided by said
5   information source server in a cache memory;

        (3) judging whether or not the information to be provided by said information source server is accumulated in said cache memory;

        (4) requesting acquirement of the information to
10 said information source server when said judging step (3) judges that the information to be provided by said information source server is not accumulated in said cache memory; and

        (5) processing either one of the information
15 accumulated in said cache memory and the information provided by said information source server in response to the request.

15.   The information providing method according to claim 14, further comprising:

        (6) judging whether or not the information provided by said information source server can be

5   stored in said cache memory;

(7) reducing the amount of the information

accumulated in said cache memory based on attribute

information composed of preference information of a

user and profile information indicative of a process

10 ability of said client apparatus when said judging

step (6) judges that the information provided by said

information source server can not be stored in said

cache memory; and

(8) controlling said cache memory such that the

15 information provided by said information source server

in response to the request is stored after the amount

of the information is reduced by said reducing step.

16.   The information providing method according to

claim 15, further comprising:

(9) providing a gateway apparatus which is

connected to said client apparatus through a first

5   data communication network and connected to said

information source server through a second data

communication network;

(10) requesting acquirement of the information

to said information source server through said second

10 data communication network with said attribute

information and communication attribute information

indicative of communication abilities of said first

data communication network and said second data

communication network when the request of said

15   requesting step (4) is received through said first

data communication network;

(11) accumulating the information provided by

said information source server into a second cache

memory in response to the request in said requesting

20   step (10) ; and

(12) transferring the information accumulated in

said second cache memory to said client apparatus

through said first data communication network based on

said attribute information and said communication

25   attribute information.

17.   The information providing method according to

claim 16, wherein said information source server

provides the information to said gateway apparatus

based on said attribute information and said

5   communication attribute information in response to the

request in said requesting step (10).

18.   The information providing method according to

claim 17, wherein said gateway apparatus provides the

information to said client apparatus based on said

attribute information and said communication attribute

5   information in response to the request in said

requesting step (4).

19.   The information providing method according to claims 18, wherein said reducing step (7) removes the information having a low priority from said cache memory, wherein the priority is determined based on
5   said attribute information.

20.   The information providing method according to claims 19, wherein said reducing step (7) compresses the information stored in said cache memory based on said attribute information.